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09/694,130	10/23/2000	Toshikazu Hirota	789-060	9002

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EXAMINER
QUAN, ELIZABETH S

ART UNIT	PAPER NUMBER
1743	6

DATE MAILED: 12/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/694,130	Applicant(s) HIROTA ET AL.	
	Examiner Elizabeth Quan	Art Unit 1743	

-- Th MAILING DATE of this communication appears on th cov r she t with th corr spondenc address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-16 is/are pending in the application.

4a) Of the above claim(s) 1-6 and 13-16 is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 7-12 is/are rejected.

7)☒ Claim(s) 9 is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on 20 July 2000 is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2 .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Election/Restrictions

1. Applicant's election of claims 7-12 in Paper No. 5 is acknowledged.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the scale on a part of the tube, portion with projection and without projection formed at position of identical distance from the pouring port on a part of an inner wall of the tube, and filter with large openings having an opening area of not more than an opening area of the discharge port and attached between the pouring port and tube for receiving the pipette must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claim 9 is objected to because of the following informalities: "formed at least at a part of said" should be "formed on at least a part of said." Appropriate correction is required.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 10 and 11 rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. The specification does not explain how such a portion with and without projections are formed. The drawings do not show this. The specification does not explain how the filter is attached between the pouring port and tube. The drawings also do not show this.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

7. Claims 7-12 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

8. Referring to claim 7, what is "formed on at least one or more substrates"? The cavities? The ports? The micropipette? Both micropipette and pipette have been used. This is confusing since they are both just pipettes. Is there a difference between holding section and tube? Are they the same? It is unclear whether options are given between the two or they are meant to be synonymous. The holding section is broader, and the tube is narrower. The recitation is improper, especially when depend claims refer to the tubes when there is an option in the base claim.

9. Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural

cooperative relationships are: the configuration connecting the substrate(s) with the pouring port, cavity, discharge port, piezoelectric/electrostrictive element, and holding section or tube.

10. Referring to claim 8, there is only one inner wall for a tube. The recitation of at least one inner wall is improper.

11. Referring to claim 10, the limitation is not understood. The drawings do not show this. There's a portion with a projection and without a projection? What is this portion? How can the be formed at positions of "identical" distance from the pouring port? The language is awkward. What is on part of the inner wall of the tube? Projection? Or no projection?

12. Claim 10 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural cooperative relationships are: the configuration connecting the portion with the elements claimed in claim 7.

13. Referring to claim 11, the limitation is not understood. The drawing shows a filter but not in the claimed configuration. What does formed with a large number of openings? Pores? Do these openings or the filters have an opening area of not more than an opening area of the discharge port? It doesn't make sense that the filter would have an opening area? The language is awkward. Drawings don't show the filter attached between the pouring port and tube. Drawings show filter attached to the pouring port below the tube.

14. Claim 12 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01. The omitted structural

cooperative relationships are: the configuration of the connecting the filter with the elements claimed in claim 7.

Specification

15. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

16. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.

2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 7, 8, 10-12 are rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over U.S. Patent No 6,461,812 to Barth et al. in view of JP404327943 to Kimura et al. and U.S. Patent No. 5,948,695 to Douglas et al. or U.S. Patent No. 5,817,522 to Goodman et al. or U.S. Patent No. 5,874,048 to Seto et al.

Referring to claims 7, 8, 10-12, Barth et al. disclose a dispenser (10) comprising a plurality of arranged micropipettes as defined by the reservoirs (22), which are not separate from the reservoirs (22) (see FIGS. 1A and 1B; COL. 6, lines 40-43 and 60-67). Each micropipette includes a pouring port (21) for pouring a sample solution from the outside, cavity (17) for pouring and charging the sample solution, and a discharge port (14) for discharging the sample solution (see FIG. 1C; COL. 2, lines 12-42). The pouring port (21) is formed on the substrate (19), and the discharge port (14) is formed on the substrate (12) (see FIG. 1C; COL. 6, lines 40-53; COL. 7, lines 1-20). The micropipette includes a piezoelectric/electrostrictive element (24) on a wall surface (26) of the

substrate (12) that forms the cavity (17) so that the sample solution is movable in the cavity (17) and discharged from the discharge port (14) of each of the micropipettes (see FIG. 1C).

The pouring port (21) has been interpreted as a holding section. The opening provided by the pouring port (21) forms a holding section for holding a pipette for pouring the solution from the pouring port (21) (see FIG. 1C). Even if this does not constitute a holding section, Kimura et al., Seto et al., Douglas et al., and Goodman et al. provide the holding sections as shown in the drawings of the instant application. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Barth et al. to provide such a holding section to guide the pipette into the pouring port, support the pipette, and prevent the pipette from extending too far into the port.

Kimura et al. show the pouring port (5) with projections forming a holding section for holding a pipette for pouring the solution from the pouring port (21) (see FIG. 1). Projections are provided at the circumference of the pouring port, and there is no projection at the entrance to the pouring port. The projections appear to be about equal distance from the pouring portion a part of an inner wall of the pouring port. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Barth et al. to include a pouring port with projections forming a holding section for holding a pipette as in Kimura et al. to guide the pipette into the pouring port, support the pipette, and prevent the pipette from extending too far into the pouring port. Seto et al., Douglas et al., and Goodman et al. disclose a tube

provided at a circumferential edge of the pouring port (see DOUGLAS et al.: FIGS. 1, 2, 6, and 9; COL. 7, lines 52-67; GOODMAN et al: FIG. 1). Seto et al. show a tube (14) for holding a pipette (18) within pouring port (22) (see FIG. 1). The tube and pouring port in Douglas et al. is molded from hydrophilic materials (see COL. 7, lines 62-67; COL. 8, lines 1-4). A filter (4) is provided in the pouring port area as shown in the drawings of the instant application. The tubes in Seto et al., Douglas et al., and Goodman et al. project from the surface of the substrate while the center of the tubes are hollow, such that there is no position in the center of the tubes. The projections appear to be equally distanced from the pouring port. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Barth et al. to include a pouring port with projections forming a holding section for holding a pipette as in Seto et al., Douglas et al., or Goodman et al. to guide the pipette into the pouring port, support the pipette, and prevent the pipette from extending too far into the pouring port.

4. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. U.S. Patent No 6,461,812 to Barth et al. in view of JP404327943 to Kimura et al. and U.S. Patent No. 5,948,695 to Douglas et al. or U.S. Patent No. 5,817,522 to Goodman et al., and further in view of U.S. Patent No. 5,223,225 to Gautsch.

Referring to claim 9, Gautsch discloses a scale for measuring an amount of liquid poured into the tube is formed on the tube for receiving a pipette (see ABSTRACT; FIG. 2A). The scale encourages accurate dispensing (see COL. 3, lines 7-41). It would have

been obvious to modify the modified device of Barth et al. to provide a scale on the tube to accurate dispense a sample or reagent.

5. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. U.S. Patent No 6,461,812 to Barth et al. in view of JP404327943 to Kimura et al. and U.S. Patent No. 5,948,695 to Douglas et al. or U.S. Patent No. 5,817,522 to Goodman et al., and further in view of U.S. Patent No. 5,874,971 to Nishioka et al.

Referring to claim 11, none of the previously cited references disclose a filter in the pouring port of a *dispenser*. However, Nishioka et al. provides a filter in the pouring port of a dispenser resembling the drawings in the instant application. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the modified device of Barth et al. to provide a filter as in Nishioka et al. to purify the liquid from particles before entry into the chamber to remove contaminants and provide easier fluid flow.

6. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. U.S. Patent No 6,461,812 to Barth et al. in view of JP404327943 to Kimura et al. and U.S. Patent No. 5,948,695 to Douglas et al. or U.S. Patent No. 5,817,522 to Goodman et al., and further in view of U.S. Patent No. 6,123,905 to Torti et al.

Referring to claim 11, none of the previously cited references disclose a filter with openings smaller than the discharge port and attached between the porouing port and tube for receiving the pipette. However, Torti et al. provides a filter in a tube, which is placed in the pouring port, such that the filter would also be between the pouring port. It would have been obvious to one having ordinary skill in the art at the time the invention was

made to modify the modified device of Barth et al. to provide a filter as in Torti et al. to purify the liquid from particles before entry into the chamber to remove contaminants and provide easier fluid flow.

Conclusion

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. They include one or more limitations in the claim.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth Quan whose telephone number is (703) 305-1947. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on (703) 308-4037. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 879-9310 for regular communications and (703) 872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.

Elizabeth Quan
Examiner
Art Unit 1743

eq
December 16, 2002

Jill Warden
Supervisory Patent Examiner
Technology Center 1700